

Mineral Industry Surveys

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LEAD IN APRIL 2005

Domestic mine production, based on the net quantity of lead recovered from concentrate, was 35,000 metric tons (t) in April, according to the U.S. Geological Survey. This was an increase of about 1% compared with production in March 2005 and a slight decrease compared with that of April 2004. Both secondary refinery production (86,800 t) and reported consumption (105,000 t) were relatively unchanged from values of the previous month. Compared with that of April 2004, secondary production was down by about 11% and reported consumption was down by about 9%.

According to Platts Metals Week published quotations, the average North American producer price decreased slightly from that of the previous month to 60.76 cents per pound. The London Metal Exchange Ltd. (LME) cash price in April 2005 ranged from a low of \$949.50 per metric ton (April 15) to a high of \$1,020.00 per metric ton (April 29), and averaged \$985.33 per metric ton, about a 2% decrease compared with the March price. April prices were up by about 13.5% and 31%, respectively, compared with April 2004 averages. During April, LME lead stocks dropped by 575 t to 32,700 t.

The lead market in North America continued to remain tight, more due to a lack of refined lead supplies than a higher consumption rate. The producer premium in the spot market remained high at 7 to 8¢ a pound. There were reports of 20,000 t of refined lead being shipped from a slowing Asian market to North America to take advantage of high premiums (CRU International Ltd., 2005a). U.S. trade data through the end of June showed the importation of a total of 8,940 t of refined lead from China in May and June, and 18,800 t from Australia in April: there were no imports of refined lead from China in the first 4 months of the year, nor from Australia during the first quarter.

In Europe, poor first quarter sales for the battery producers meant less lead demand. Business across the continent reportedly was slightly lower than that seen a year ago, with some regional variations (CRU International Ltd., 2005a).

In March, Chinese refined lead production set a new month production record of nearly 167,000 t, and the first quarter's production (460,000 t) was 13% above that of 2004 first quarter. Refined lead exports for the quarter were down 20% (93,300 t)

compared with exports in the first quarter of 2004 (CRU International Ltd., 2005a).

BHP Billiton Limited (Australia) reported that its Cannington Mine (Queensland) Australia produced 80,900 t of lead in concentrate for the first quarter of 2005, 13% more than in the previous quarter. Increased production was achieved by increased mill throughput and higher average lead grades (CRU International Ltd., 2005b).

Idea One Incorporated (United States) and Professor Doron Aurbach of Israel's Bar Ilan University reportedly tested and patented the chemistry for the first rechargeable magnesium battery. This battery was claimed to be free of toxic metals, and could displace lead-acid batteries for applications such as uninterruptible electric power for computer networks, electricity storage for power generation plants and utilities, electric vehicles (electric cars, golf carts, and electronically powered forklifts), and portable powered devices (Metal-Pages, 2005¹).

The National Defense Stockpile aggregated cash disposal (sale) of lead in April, under the monthly Basic Ordering Agreement DLA-Lead-005, was 2,679 t (approximately 2,953 short tons), with an approximate value of \$2.8 million (Defense National Stockpile Center, 2005).

References Cited

- CRU International Ltd., 2005a, CRU Monitor—Lead: CRU International Ltd., May, 12 p.
CRU International Ltd., 2005b, CRU Monitor—Lead & Zinc Concentrates: CRU International Ltd., May, 12 p.
Defense National Stockpile Center, 2005, Stockpile announces lead sales for March 2005: Fort Belvoir, VA, Defense National Stockpile Center news release, May 5, 1 p.

Internet Reference Cited

- Metal-Pages, 2005 (April 27), Magnesium batteries to mobilize portable electronics and vehicles, accessed July 25, 2005, via URL <http://www.metal-pages.com>.

¹A reference that includes a section mark (§) is found in the Internet Reference Cited section.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2004		2005		
	Year	January - April	March	April	January - April
Production:					
Mine (recoverable)	430,000	134,000	34,600 ^r	35,000	132,000
Primary refinery	NA	NA	NA	NA	NA
Secondary refinery:					
Reported by smelters/refineries	1,120,000	375,000	84,700	84,700	355,000
Estimated	11,300	3,780	855	855	3,590
Recovered from copper-base scrap ^c	15,000	5,000	1,250	1,250	5,000
Total secondary	1,140,000	384,000	86,800	86,800	364,000
Stocks, end of period:					
Primary refineries	NA	NA	NA	NA	NA
Secondary smelters and consumers	66,100	66,500	63,200	63,900	63,900
Imports for consumption:					
Ore and concentrate	3	1	2	NA	6 ²
Refined metal	183,000	56,500	19,200	NA	54,700 ²
Consumption:					
Reported	1,480,000 ^r	113,000	105,000	105,000	437,000
Undistributed ^c	45,700 ^r	3,510	3,260 ^r	3,250	13,500
Total	1,520,000 ^r	117,000	109,000	108,000	451,000
Exports:					
Ore and concentrate	292,000	64,300	12,800	NA	37,800 ²
Bullion	129	24	23	NA	65 ²
Wrought and unwrought lead	82,400	32,100	6,260	NA	18,600 ²
TEL/TML preparations, based on lead compounds	1,020	170	384	NA	633 ²
Exports (gross weight): Scrap	56,300	22,700	5,300	NA	14,300 ²
Platts Metals Week North American producer price (cents per pound)	55.14	50.43	60.82	60.76	60.74

^cEstimated. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

²Includes data for January - March only; April data were not available at time of publication.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price cents/lb	LME		Sterling exchange rate dollars/£
		\$/metric ton	£/metric ton	
2004:				
April	53.51	753.21	418.05	1.801710
December	60.73	974.39	505.22	1.928639
Year	55.14	885.95	483.26	1.832475
2005:				
February	60.73	977.03	517.74	1.887105
March	60.82	1,005.19	527.85	1.904304
April	60.76	985.33	519.66	1.896105

Source: Platts Metals Week.

TABLE 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP¹

(Metric tons, gross weight)

Item	Stocks March 31, 2005	Net receipts	Consumption	Stocks April 30, 2005
Battery-lead	12,900 ^r	96,800	96,900	12,800
Soft lead	W	W	W	W
Drosses and residues	1,830 ^r	1,520	1,510	1,840
Other ²	205 ^r	1,950	1,750	403
Total	15,000	100,000	100,000	15,000
Percent change from preceding month	XX	+0.0	+0.0	+0.0

^rRevised. W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap not elsewhere classified.

TABLE 4
LEAD, TIN, AND ANTIMONY RECOVERED FROM
LEAD-BASE SCRAP IN APRIL 2005¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	64,800	--	--
Remelt lead	--	--	--
Antimonial lead	19,900	W	W
Other ²	--	W	W
Total lead-base	84,700	23	254

W Withheld to avoid disclosing company proprietary data; included in "Total."

-- Zero.

¹Data are rounded to no more than three significant digits.

²Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5
CONSUMPTION OF LEAD IN THE UNITED STATES¹

(Metric tons, lead content)

Use	2004		2005		
	January - December ^r	January - April	March	April	January - April
Metal products:					
Ammunition, shot and bullets	61,500	13,200	4,340	3,850	15,900
Brass and bronze, billet and ingots	4,190	745	194	194	774
Cable covering, power and communication and cabling lead, building construction	5,540	1,190	551	620	2,170
Casting metals	17,900	17	2,780	2,780	11,100
Sheet lead, pipes, traps and other extruded products	32,400	2,160	666	666	5,540
Solder	7,440	440	164	69	447
Storage batteries, including oxides	1,290,000	91,500	88,400	88,500	371,000
Terne metal, type metal, and other metal products ²	15,400	24	1,260	1,260	5,050
Total metal products	1,300,000	109,000	98,300	97,900	412,000
Other oxides and miscellaneous	1,770	4,070	7,180	7,060	25,600
Total reported	1,480,000	113,000	105,000	105,000	437,000
Undistributed consumption ^c	45,700	3,510	3,260 ^r	3,250	13,500
Grand total	1,520,000	117,000	109,000	108,000	451,000

^cEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

TABLE 6
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS,
AND CONSUMPTION OF LEAD¹

(Metric tons, lead content)

Type of material	Stocks March 31, 2005	Net receipts	Consumption	Stocks April 30, 2005
Soft lead	33,500 ^r	79,000	79,900	32,600
Antimonial lead	15,300 ^r	35,100	35,000	15,300
Lead alloys	W	W	W	W
Copper-base scrap	W	W	W	W
Total	64,700 ^r	131,000	132,000	63,900

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 7
U.S. EXPORTS OF LEAD, BY CLASS¹

(Metric tons)

	2004		2005		
	March	Year	February	March	January - March
Lead content:					
Ore and concentrates	40,900	292,000	12,700	12,800	37,800
Bullion	16	129	18	23	65
Materials excluding scrap	7,650	82,400	4,960	6,260	18,600
TEL/TML preparations, based on lead compounds	99	1,020	132	384	633
Total	48,700	375,000	17,800	19,500	57,000
Gross weight: Scrap	7,410	56,300	4,610	5,300	14,300

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN¹

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	2004		2005			2004		2005		
	Year	January - March	February	March	January - March	Year	January - March	February	March	January - March
Base bullion:										
Mexico	3	1	--	--	--	3	1	--	--	--
Other	--	--	2	2	6	--	--	2	2	6
Total	3	1	2	2	6	3	1	2	2	6
Pigs and bars:										
Canada	166,000	37,100	16,700	16,800	50,700	166,000	37,100	16,700	16,800	50,700
Mexico	8,810	3,480	281	327	854	8,810	3,480	281	327	854
Peru	7,270	--	54	2,100	3,100	7,270	--	54	2,100	3,100
Other	1,310	534 ^r	13	28	83	15,100	534 ^r	13	28	83
Total	183,000	41,100	17,000	19,200	54,700	197,000	41,100	17,000	19,200	54,700
Grand total	183,000	41,100	17,000	19,200	54,700	197,000	41,100	17,000	19,200	54,700

^rRevised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.